Xpander Desktop Elite Gen 3
Features, Benefits and Specifications

Xpander Desktop Elite (see the image at the right) is a desktop PCI Express (PCIe) expansion enclosure that enables connection of graphics processing units (GPUs) or other controllers to a host computer. The host must have one PCIe Gen 3.0 x16 expansion slot available for the host interface controller (HIC).

Desktop Elite provides four PCIe Gen 3.0 x16 slots on one main interface board (MIB) for double-wide GPUs that are NVIDIA® Compute Unified Device Architecture (CUDA) -enabled. Desktop Elite supports other PCIe adapters as well. Xpander supports applications that exploit multiple GPUs, including rendering graphics or high-performance computing (HPC).

Features

- Desktop enclosure with four PCIe Gen 3.0 x16 slots
  - Four double-wide GPUs such as NVIDIA GeForce GTX, Quadro or Tesla series
  - Single-wide cards such as RED® Rocket or SDI capture cards
- One 1,500Watt power supply
- One cooling fan for GPUs with active cooling
- One PCIe Gen 3.0 x16 HIC
- One 1meter PCIe data cable
- LCD management panel

Benefits

- Application support examples
  - Production broadcasting or cinema applications requiring high-performance GPUs, SDI or HD-SDI audio/video capture cards from Blackmagic Design®, AJA® or NVIDIA®
  - Adobe® After Effects CS6 (with 3D ray-tracing)
  - Autodesk® 3ds Max with GPU-accelerated, 3D rendering products such as Chaos Group® V-Ray or Mental Images® iRay
  - Bunkspeed® SHOT / MOVE, Random Control® Arion and others
  - Passware Kit Forensic
  - High-Performance Compute (HPC) mathematical / scientific / engineering applications
  - Video walls with multi-port display cards, multiple video capture cards and video synch
- Power and cooling for multiple GPUs with active cooling
- Expand one PCIe Gen 2 x16 slot in a host computer to four PCIe devices
- Multiple PCIe devices fit within a space-saving desktop enclosure
- Monitor the status of power supply, cooling fan, PCIe cable and slots from the LCD panel.

Xpander Desktop Elite Technical Specifications

Expansion slots, x16	PCI Express Gen 3 x16 mechanical / electrical on one mainboard
Number of slots / MIB	4 slots / 1 MIB
Form factor support	4 double-wide, full-length, full-height controllers / adapters

Connecting cable, std	External PCI Express x16, 136-pin
Connector duty cycle	250 mating cycles maximum per connector
Length, standard	1.00meters (39.37inches or 3.28feet)
Length, optional	2.00meters (78.74inches or 6.56feet)
PCIe x16 HIC, standard	Install in a PCIe x16 slot
In host PCIe Gen 3 slot	Provides up to 128Gbps data transfer
In host PCIe Gen 2 slot	Provides up to 80Gbps data transfer
In host PCIe Gen 1 slot	Provides up to 40Gbps data transfer
Front panel LCD	Main menu = left button; sub-menu = right button (See detail on page 7.)
Cubix Corporation	MIB assembly and revision; management firmware revision
Power supply status	Standard main power; optional redundant power
Temperature status	3 sensor readouts in degrees Centigrade (C)
Fan status	Fan status, voltage percent (%) speed
PCIe link status	x16 cable connected; 8.0Gbps, 5.0Gbps or 2.5Gbps x16 link speed
x16 cable	Connected or not connected status
Slot 1 - 4 x16 transfer rate, theoretical	PCIe Gen 3.0, 8.0Gbps x16 = 128.0Gbps PCIe Gen 2.0, 5.0Gbps x16 = 80.0Gbps PCIe Gen 1.1, 2.5Gpbs x16 = 40.0Gbps
LCD panel backlight	Toggle on / off using right button
Rear panel	Power input receptacle
Cooling fan	1 fan runs at 112cfm (cubic feet per minute) maximum
Initial power up	Fans are full on for 10s (seconds)
Fan speed, minimum	25C degrees
Fan speed, maximum	50C degrees
Fan speed, in range	25C degrees to 50C degrees in progression with sensed temperature
AC power supply	
HE standard version	Single-phase, auto-ranging, 100-240VAC, 15-7Amps, 50/60Hz; total output power is not to exceed 1,500Watts
LE optional version	One single-phase, auto-ranging, 100-240VAC, 10-5Amps, 50/60Hz; total output power is not to exceed 1,200Watts
HE standard aux power	4 sets of connectors, each with 8pins + 8pins
LE optional aux power	4 sets of connectors, each with 8pins + 6pins
Operating environment	0° to 30° Celsius (32° to 86° Fahrenheit) temperature 5% to 80% non-condensing humidity
Dimensions (no handle)	11.25" H x 8.50" W x 16.25" D (28.57cm H x 21.59cm W x 41.27cm D)
Dimensions (with handle)	12.75" H x 8.50" W x 16.25" D (32.38cm H x 21.59cm W x 41.27cm D)
Weight	19.20lbs (8.71kg)
Warranty / period	Parts & labor return to manufacturer / 2 years
Ext. warranty period	Optional 3 years

Included

Desktop Elite HE standard version includes a cooling fan, a 1,500W power supply and a power cord as well as a MIB, one PCIe x16 HIC and one external PCIe x16 cable, 1meter long. Desktop Elite requires no driver or software. The only drivers you install are those for the devices you install in the unit. Xpander includes a two-year warranty.

Options

The optional LE version features a 1,200W power supply and a quieter fan. Optional 2meter PCIe cable is available. Cubix offers a third-year warranty.